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Title: Earnings Management and Tone Management: Evidence from FTSE 350 companies. Salah Kayed¹, Jessica Yang², and Dan Zhou³

Summary: The aim of this paper is to study the self-serving behaviour in financial reporting and disclosure, especially the association between earnings management and tone management in earnings conference call. One of the main incentives for management to manipulate in reporting is to beat or meet the earnings benchmark by small positive number. Additionally, previous research documents that tone is associated with financial performance, particularly, meeting or just beating the earnings benchmark. Therefore, meeting or just beating the earnings benchmark behaviour is taken into consideration in our analysis. We find that firms that just beat the earnings benchmark and likely have more earnings management provide more abnormal tone during earnings conference call. This means that firms that use earnings management have incentives to manipulate in their narrative disclosure through tone of words, to obfuscate users about the earnings management techniques used in their reporting in order to achieve the earnings benchmark.

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Earnings Management and Tone Management: Evidence from FTSE 350 companies

1. Introduction

In a conference call, different users, such as analysts and other market participants can interactively discuss with managers (i.e. CEO and CFO), within thirty to sixty minutes, about the earnings announcement. Huang et al. (2014) provide an empirical evidence that managers use their discretion in disclosing the tone of words to mislead investors through concealing poor future performance. Managers also manipulate their earnings to mislead the perception of investors about the firm (Teoh et al., 1998; Xie, 2001). For instance, managers are more likely to manage earnings upward in order to avoid reporting losses or a decrease in earnings (Burgstahler and Dichev, 1997). The accounting literature shows that managers exercise earnings management techniques in order to just beat or meet an earnings benchmark (Healy and Wahlen, 1999; Dechow and Skinner, 2000; and Fields et al., 2001). In this case, although firms are more likely to present good news about their performance, they have incentives to conceal the tools that have been used to achieve the benchmark. The question that may arise here is how the tone management in earnings conference call varies with earnings management used to just attain the earnings target. In other words, when reported earnings hits the benchmark and it differs from the underlying truthful earnings, we predict that managers will try to manage the tone of their speaking during earnings conference call to be in a positive way as an impression management practice, which will reflect optimistic picture for users and make it harder for them to discover the earnings management techniques that have been used to achieve such reported earnings.

We find that firms that just beat the earnings benchmark and exercise more either discretionary accruals or real earnings management, provide more abnormal tone during earnings conference call. This means that firms that use earnings management have incentives to speak positively during earnings conference call to mislead users about the earnings management techniques used in their reporting in order to achieve the earnings benchmark. Our results suggest that both earnings management and tone management strategies complete each other, where they can be used by managers as a self-serving behaviour. These findings highlight the need for increased accountability by firms on earnings conference call. This paper extends our understanding of the self-serving theory in reporting and communication, and it adds to the extant literature by analysing the management tone during earnings conference call in the UK.

The following sections of this study are as follows. Section 2 presents the related literature and hypothesis development. Section 3 describes the data and methodology. Section 4 discusses the empirical results. Section 5 presents the conclusion of the study.

2. Related literature and hypothesis development

2.1. Self-serving theory in financial reporting and communication

The agency theory suggests the principle of conflicting interests among different parties related to the business firm (Fama and Jensen, 1983; Jensen, 1986; Jensen and Meckling, 1976). It expected from managers to make their decisions based on shareholders' top interest. However, the fact is that they can exercise actions, which increase their own interest; as they are the main source of reporting and disclosed financial information. This information asymmetry between managers and external users is mostly aroused through employing a management strategy called "earnings management" (Dye, 1988; Trueman and Titman, 1988). Schipper (1989, p. 92) describes earnings management as "a purposeful intervention in the external financial reporting process, with the intention of obtaining some private gain". Managers are more likely to manage earnings, because there are several incentives to do so, such as; financial gain, self-preservation, job security, bonus, satisfying the expectations, increasing the stock price, and meeting the earnings benchmark (Burgstahler and Dichev, 1997; Healy and Wahlen, 1999; Habib and Hansen, 2008; Lo, 2008). In sum, the evidence is consistent with that managers use earnings management techniques to achieve various self-serving objectives.

The information asymmetry between managers and external users leads to arise risks of moral problems threating the management party (Beaver, 1998). A management strategy called "impression management" can be considered as one appearance of agency problem. It can be defined as the process in which managers manipulate in their impressions to influence on their audience (Goffman, 1959). In the accounting context, impression management is also defined by Clatworthy and Jones (2001, p. 311) as an attempt "to control and manipulate the impression conveyed to users of accounting information". In addition, Yuthas et al. (2002, p. 142) define it as a medium to "strategically ... manipulate the perceptions and decisions of stakeholders". Leary and Kowalski (1990) state that both individuals and organisations can change the image of other "external" parties by making a bias in the information provided to them. Similarly, Clatworthy and Jones (2003) argue that in most cases, empirically, managers provide a positive disclosure bias as an impression management in order to increase remuneration and job security. Obviously, the main purpose for managers in employing impression management is to reflect a self-serving vision of their performance (Neu, 1991; Neu et al., 1998). Indeed, many

users of financial information such as creditors, shareholder, or investor evaluate the management performance through the earnings number achieved and disclosures provided by managers themselves. For example, Lambert (2001) clarifies that financial providers evaluate managers progress based on their reporting. This creates incentives for management to manipulate in their reporting and communication in order to achieve their self-serving interest.

One of impression management techniques that has been recently shown in the accounting literature is a positive language technique through positive tone "tone management", which is the focus of this study, to present a strong performance (Schleicher and Walker, 2010; Huang et al ., 2014). Cho et al. (2010) argue that impression management strategy can be resulted from the bias in the language and verbal tone engaged in narrative disclosure. More clearly, managers can manipulate in tone for their self-serving interest through changing positively the users' perception. Indeed, managers exercise a self-serving bias to emphasis good news and conceal bad news through providing more positive than negative keywords (Abrahamson and Park, 1994; Matsumoto et al., 2006; Rutherford, 2003; Huang et al., 2014).

This study focuses on two common management strategies used as a self-serving behaviour. One is used in reporting which is earnings management strategy. The second is employed in managers' communication which is tone management. According to the literature, these two strategies is linked with financial performance. Having discussed using reporting and communication strategies as self-serving behaviour, the next sections look at the link between financial performance and earnings and tone management.

2.2. Earnings Management and financial performance

Previous literature shows that earnings management is associated with financial performance. DeFond and Park (1997) report that in case when current year's financial performance is "poor" and future financial performance is expected to be "good", firms will manage the reported earnings by borrowing some earnings from future to be used in the current year. Burgstahler and Dichev (1997) provide an empirical evidence that firms manage earnings through accruals in order to avoid losses or the decrease in earnings. Similarly, Roychowdhury (2006) states that managers workout in real earnings management activities to avoid reporting losses. Lee et al. (2006) document that firms that have higher amount of earnings management have higher current performance and long-term growth. Furthermore, the accounting literature shows that managers exercise earnings management techniques (i.e. accruals or real earnings management) in order to just hit an earnings benchmark. Burgstahler and Dichev (1997) spot

that there is a high increase in accruals for firms that just beat the earnings with increasing the discontinuity in the distribution relative to other firms. Abarbanell and Lehavy (2003) indicate that firms use accruals to meet the earnings target in the current period or to increase the probability of beating the future target. Consistently, Peasnell et al. (2000) studied the UK firms in this respect and they report that firms, which their changes between pre-managed earnings figure and the analyst expectation are negative, have positive average of discretionary accruals. In conclusion, managers apply different earnings management practices as a self-serving behaviour through affecting firm's financial performance.

2.3. Tone Management and financial performance

Many of prior studies are in consensus with that management sentiment in the corporate communications decreases the information asymmetry level between managers and firm's users, and plays an important role in predicting future firm's performance (Davis et al. 2012; Patelli and Pedrini, 2013). A number of previous studies document that managers' optimistic tone is positively associated with current and future firm's performance, and firms that beat the earnings benchmark (Frankel et al., 2010; Feldman et al., 2010; Demers and Vega, 2011; Davis et al. 2012; Price et al., 2012; Davis et al., 2015). Similarly, Li (2010) provide an evidence that firms with strong current performance deliver more positive tone of forward-looking statement. Li also shows that tone is positively associated with future performance in case when they employ Bayesian machine learning algorithm to measure tone, however, the author finds no association between tone and future performance when dictionary approaches is used to measure tone. Boudt and Thewissen (2018) find that optimistic tone in CEO letters is positively associated with future performance and they proof that the position of tone in CEO letters significantly outweigh the tone itself in predicting future performance. Boudt et al. (2018) provide an evidence that when management tone in earnings press release is informative in predicting future performance, this informativeness increases when the firm operates in a high information asymmetry environment.

On the other hand, other studies find optimistic tone is negatively associated with firm's performance. For example, Cho et al. (2010) argue that firms that have poor environmental performance provide significantly more positive tone than those with strong environmental performance. Schleicher and Walker (2010) find that firms that have large decreases in future sales and operating profit margin which are considered as "bad news" about future performance, provide more positive than negative tone in the forward-looking narrative disclosures consistent with impression management strategy. They also find that loss firms

disclose more optimistic tone than other firms. More recently, Huang et al. (2014) show that abnormal optimistic tone is negatively related to future earnings and cash flow. However, Barkemeyer et al. (2014) provide an evidence that management optimistic tone in corporate sustainability reports does not reflect the accurate and fair information about corporate sustainability performance, as mangers employ the tone in these reports in purpose for impression management rather than accountability of sustainability performance.

In sum, previous research finds a significant association between tone management and financial performance, but the direction of this association is controversial in the literature referring to the tone's medium and measurement used. However, most authors agree that management tone is provided for self-serving purposes through influencing on firm's financial performance.

2.4. Hypothesis development

Based on the above discussion, we expect that earnings management is associated with tone management. The main purpose of earnings and tone management is the self-serving behaviour. Therefore, we believe that managers can manipulate in their earnings, and disclose qualitative or narrative text "optimistic tone" in their speaking during the earnings conference call as an impression management practice to affect users' perception in order to distract them about their manipulation in reporting. Few studies look generally at this domain of research. For example, Godfrey et al. (2003) show that there is a positive relationship between earnings management and using graphical impression management. Guillamon-Saorin and Osma (2010) examine the association between earnings management and impression management in annual earnings press releases by using a sample of Spanish firms over the period from 2005 to 2006. They find that firms that have a high earnings management, exhibit more impression management in their annual earnings press releases. Similarly, Boudt and Thewissen (2018) finds a positive association between impression management in CEO letters and using the discretionary accruals. Larcker and Zakolyukina (2012) focus on the deceptive language that is used in the conference calls. They show that using linguistics-based deceptiveness technique in the answers of corporate executive officer for quarterly events of earnings conference calls is better than discretionary accruals models in term of predicting accounting manipulation. More specifically, Huang et al. (2014) did a pilot study about earnings management and abnormal tone in earnings press release, suggesting that abnormal tone is positively correlated with earnings management. Iatridis (2016) shows that pessimistic tone in the annual report is

negatively associated with earnings manipulation. Consistent with prior research, our main hypothesis is as follows:

H1. Earnings management is positively associated with tone management.

One of the main managers incentives is to meet or just beat the earnings benchmark, which is considered as a self-serving behaviour, and because our focus in this paper is on self-serving behaviour in reporting and communication, we emphasise our analysis in this paper on three aspects; hitting the earning benchmark with small positive number, management manipulation in number through financial reporting "earnings management", and management manipulation in words during earnings conference call "tone management". Because this study stresses on management manipulation, we take into consideration abnormal management tone rather than management tone itself. More clearly, we test the effect of the interaction between earnings management and firms that meet or just beat the earnings benchmark on abnormal management tone in earnings conference call. We expect that firms at or just above the zero of earnings change benchmark and likely have more earnings management will show more abnormal positive tone in their speaking during earnings conference call as an impression management technique to conceal their manipulation in reported earnings. Figure 1 summarises the theoretical model for this study.

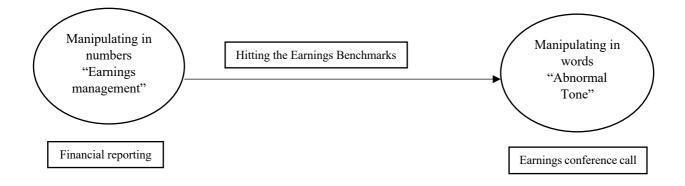


Figure 1: Theoretical model for the study

3. Data and Methodology

3.1. Sample and data

We manually collect earnings conference call transcripts from Thomson Reuter Databased for UK FTSE 350 firms from 2010 to 2015. Financial data and data on firm characteristics are collected from Bloomberg, World Scope and DataStream databases. We exclude firms in financial sector and without available earnings conference call data. Our final sample includes 840 earnings conference call observations from 315 firms. There are two parts in each earnings conference call. The first is presentation part in which managers present the reported earnings results. The second part is questions and answers (hereafter Q&A) in which financial analysts or other audience ask questions and managers answer these questions. Sometimes managers ask the questions and the audience responds.

Table 1 presents the industry distribution of our sample firms. We use two digits of ICB (Industry Classification Benchmark) classification which is commonly used for UK firms. The industrial goods and services sector has the largest number of firms (73, 23%), followed by Travel & Leisure (37) and Retail (34). Notably, Automobiles & Parts only has 1 firm.

Industry classification	Number of firms	Percentage
Automobiles & Parts	1	0.32%
Basic Resources	29	9.21%
Chemicals	7	2.22%
Construction & Materials	7	2.22%
Food & Beverage	18	5.71%
Health Care	16	5.08%
Industrial Goods & Services	73	23.17%
Media	17	5.40%
Oil & Gas	24	7.62%
Personal & Household Goods	13	4.13%
Retail	34	10.79%
Technology	20	6.35%
Telecommunications	9	2.86%
Travel & Leisure	37	11.75%
Utilities	10	3.17%
Total	315	100.00%

Table 1: Industries distribution

3.2. measure of tone management

In order to measure tone management, we need a word list that can identify the qualitive characteristics of tone. Loughran and McDonald (2011) suggests that previous word lists from Bayesian algorithms (Li, 2010), Harvard's General Inquirer (Tetlock, 2007), and Diction (Davis et al., 2012) to identify different tones are designed for general purposes while not suitable to evaluate a firm's financial communications. They develop an alternative word list which is more appropriate in distinguishing positive and negative tone in financial reporting communications. Words like *none, no, neither* are defined as negative words while other words like *able, advantages, boosted* are defined as positive words. The full words' list and classifications are presented in Appendix A.

We employ Loughran and McDonald (2011)'s word list to identify the frequency of positive versus negative words that managers presented in the annual earnings conference call. As such, following previous studies (e.g. Brockman et al., 2015; Blau et al., 2015; Chen et al., 2018), we construct the variable of tone management (*TONE*) as the difference between the frequencies of positive and negative words scaled by the total words that are spoken by the managers in an earnings conference call. We restrict our analysis of TONE to the whole presentation part and only managers' words in Q&A part. PYTHON software is used to exclude words that do not come from managers in each earnings conference call transcript. Consistent with Davis and Tama-Sweet (2012) and Iatridis (2016), the textual-analysis software, DICTION 5.0, is employed to obtain the frequencies of positive and negative words.⁴

In line with Huang et al. (2014), TONE is decomposed into two components, normal component and abnormal component (Ab_Tone). To examine the association between management's manipulation in numbers (Earnings Management) and management's manipulation in words (Tone Management), we follow Lee and Park (2018) in using Ab_Tone instead of TONE as a whole based on the below pool regression model in order to obtain the managerial strategic choice of tone rather than tone that stems from current available information about fundamentals and business environment (i.e. current market and financial performance, growth opportunities, firm operating risk, and complexity). The residual from the following regression represents Ab_Tone. Table (4) shows the regression result of Tone Model.⁵

⁴ DICTION software has the ability to produce number of words frequencies (for txt file) based on the predetermined word list.

⁵ All variables are described in Appendix C.

 $TONE_{a} = \alpha_{0} + \alpha_{1} ERN + \alpha_{2} RET_{a} + \alpha_{3} Size_{a} + \alpha_{4} BTM_{a} + \alpha_{5} STD RET_{a} + \alpha_{6} ERN_volatility_{a} + \alpha_{7}$ $Age_{a} + \alpha_{8} Bus_Segments_{a} + \alpha_{9} Geographic_segments_{a} + \alpha_{10} Loss_{a} + \alpha_{11} \Delta ERN_{a} + \alpha_{12} AFE_{a} + \alpha_{13} AF_{a}$ $+ Year_{t} + Industry_{i} + \varepsilon_{a}$

3.3. measure of earnings management

The literature identifies two types of earnings management: real and accrual-based earnings management. accrual-based earnings management is the use of accounting maneuvers to manage earnings, while real earnings management is defined as managing earnings via changing the timing or structuring of an operation, investment, or financing transaction (Cohen & Zarowin, 2010; Farooqi et al., 2014; Graham et al., 2005). We examine proxies for both earnings management types in this study, as we expect both will affect the tone management in conference calls.

Accrual earnings management

As in prior studies (e.g. Cohen and Zarowin; 2010; Harris et al. 2019), we use discretionary accruals to estimate accrual-based earnings management based on the following cross-sectional Jones model (1991) for each two-digit ICB industry and year:

$$TAC_{ii} / Asset_{ii} = \alpha_{i}(1 / Asset_{ii}) + \alpha_{2} \Delta REV_{ii} / Asset_{ii} + \alpha_{3}PPE_{ii} / Asset_{ii} + \varepsilon_{ii}$$
(1)

Where, TAC_{it} is the total accruals calculated as the differences between the earnings before extraordinary items and discounted operations and operating cash flows in year t. $A_{i,t-1}$ is total asset for in year t-1; ΔREV_{it} is change in revenue from year t-1 to t ; and *PPE*_{it} is gross property, plant and equipment in year t.

We then calculate the non-discretionary accruals (NDA_a) for each sample firm and each year using the coefficients estimated from Equation (1). The discretionary accrual (DA_a) is TAC_a/Asset_{ion} minus NDA_a:

$$NDA_{a} = \hat{\alpha}_{1}(1/Asset_{a,1}) + \hat{\alpha}_{2} \Delta REV_{a} / Asset_{a,1} + \hat{\alpha}_{3}PPE_{a} / Asset_{a,1} + \varepsilon_{a}$$
(2)

$$DA_{it} = TAC_{it} - NDA_{it}$$
 (3)

Real earnings management

There are three proxies to measure real earnings management activities: sales manipulation, discretionary expenses manipulation, and production cost manipulation (Roychowdhury, 2006). We only examine sales manipulation and discretionary expenses manipulation rather than production cost manipulation, due to production cost data limitation in UK firms (Buchner et al., 2018; Alhadab and Clacher, 2018).

As Roychowdhury (2006), we use the Dechow et al. (1998) cross-sectional model to estimate sales manipulation and discretionary expenses manipulation. We first use the following cross-sectional regressions for each industry and year for all UK listed firms to capture the normal level of cash flows from operations and discretionary expenses, respectively:

$$CFO_{i,t}/Asset_{i,t} = \alpha_1(1/Asset_{i,t}) + \alpha_2 REV_{it}/Asset_{i,t} + \alpha_3 \Delta REV_{it}/Asset_{i,t} + \varepsilon_{it} \quad (4)$$

$$DISX_{it} / Asset_{i:1} = \alpha_1 (1 / Asset_{i:1}) + \alpha_2 REV_{i,t-1} / Asset_{i:1} + \varepsilon_{i,t}$$
(5)

Where, $CFO_{i,t}$ is firm's cash flow from operations in year t; REV_{it} : is revenue in year t; $DISX_{it}$ is the sum of, SG&A (selling, general, and administrative expense), R&D (research and development), and advertising expenses in year t. Other variables are defined as above.

Similar as the discretionary accurals, the abnormal CFO (the abnormal of discretionary expenses) is calculated as actual CFO (discretionary expenses) minus the normal level of CFO (discretionary expenses) that is estimated using the coefficients from equation 4 (5).

Following Cohen et al. (2008) and Zang (2012), we also combine the abnormal level of cash flows from operations and the abnormal level of discretionary expenses to capture the aggregate effect of real earnings management. In particular, we multiply abnormal cash flow from operations and abnormal discretionary expenses by -1, and then we take the summation between them, which expresses the aggregated measure of real earnings management (REM).

3.4. Just beating or meeting

We follow Lo et al. (2017) to use past year's earnings per share (EPS) as earnings benchmark and define whether a firm meets or beats this benchmark. In particular, a firm is identified as just beating or meeting (JMBE) when the change in EPS from past year (Δ EPS) within the range from zero to a small positive number such as [£0, £0.01]. For robustness, we use £0.01, £0.02 and £0.03 to defined the small positive number and hence three ranges [£0, £0.01], [£0, $\pounds 0.02$], or [£0, £0.03]. We also use earnings divided by total asset as alternative benchmark.

3.5. control variables

A series of control variables that may affect the level of earnings management and urge a certain level of tone. For instance, the earnings-related variables, such as; earnings before extraordinary items (EARN), change in earnings before extraordinary item (Δ EARN), Loss (Loss), Analysts' forecast error (AFE), and analysts' forecasts (AF) are included to control for the effect of performance on tone management (Huang et al., 2014; Davis et al., 2015). Annual stock returns (RET) and book-to-market ratio (BTM) variables are also included to capture the current forward-looking property of market information that may impact the management tone level (Huang et al., 2014). Size (Size), age of the firm (Age), revenues growth (REV Growth), leverage (DEBT TO EQY), issue capital (issue), and tangibility (PPE), may also affect the level of tone and earnings management (e.g. Aerts and Cheng, 2011; Ali and Zhang, 2015; Cassell et al., 2015; Guillamon-Saorin and Osma, 2010). Following Huang et al. (2014); Li (2010), we also add volatility of stock returns (STD RET) and volatility of earnings (ERN volatility) to measure the environmental operating and business risk of the firm. Our sample is all non-financial firms classified under FTSE 350 in any year during the period from 2010 to 2015. For example, if a non-financial firm classified under FTSE 350 only in 2010, this firm has been taken in our sample. Therefore, we construct a dummy variable (FTSE 350), which equal one if the firm is classified under FTSE 350 list, and zero otherwise. Year dummies and industry dummies are also controlled.

3.6. Empirical model

The following regression model is used to test the association between earnings management and tone management (H1):

 $\begin{aligned} Ab_Tone_{a} &= \alpha_{0} + \alpha_{1} \left(EM_{a} \times JMBE_{a} \right) + \alpha_{2} EM_{a} + \alpha_{3} JMBE_{a} + \alpha_{4} ERN + \alpha_{5} RET_{a} + \alpha_{6} Size_{a} + \alpha_{7} \\ BTM_{a} + \alpha_{8} STD_RET_{a} + \alpha_{9} ERN_volatility_{a} + \alpha_{10} Age_{a} + \alpha_{11} Loss_{a} + \alpha_{12} \Delta ERN_{a} + \alpha_{13} AFE_{a} + \alpha_{14} \\ AF_{a} + \alpha_{15} PPE_{it} + \alpha_{16} REV_Growth_{it} + \alpha_{17} DEBT_TO_EQY_{it} + \alpha_{18} issue_{it} + \alpha_{19} FTSE_350_{a} \\ + Year_{t} + \epsilon_{a} \end{aligned}$

All continues variables are winsorized at the 1 percent level. We apply panel fixed effect regression for firm and year (equation 6) by using the abnormal tone as dependent variable, and the interaction between one of the earnings management proxies and firms that just meet

or beat the target as independent variable with control variables described in subsection (3.5). Following prior research in tone literature, the standard error is clustered by firm.

3.7. Summary statistics

3.7.1. Descriptive statistics

Table 2 presents summary descriptive statistics for the variables used in the study analysis. The results reveal that mean and median for the management tone are (0.340) and (0.343) respectively, indicating that on average managers' tone in our sample of earnings conference call are relatively positive. This result is in the line with that of Davis et al. (2015) who study the tone in earning conference call in the US, where their average of net positive words in the call based on Loughran and McDonald (2011) wordlists is (0.0059). Similarly, Huang et al. (2014) report a positive average of tone in annual press release in the US with value (0.0043). In contrast, Loughran and McDonald (2011) show a higher average for negative words than positive words in 10-K filings for US firms. Overall, our result is greater than previous studies of tone, which have been done in US market. This indicates that managers in the UK disclose more optimistic tone than managers in the US. Moreover, the mean and median of Ab_Tone are (0.001), (0.007) respectively. This is in line with previous research (i.e. Huang et al., 2014; Lee and Park, 2018), where the mean and median in previous studies are close to zero. This indicates that managers manipulate positively in their speaking during earnings conference call.

Furthermore, table 2 shows that the averages of earnings management measures are (0.487), (0.457), and (0.265) for DA_J, DA_MJ, and REM respectively. The descriptive results reveal that there are some outliers, in particular with earnings management variables⁶. We only focused on firms existed in FTSE 350, which are supposed to do earnings conference call. This leads to have relatively small sample size in our analysis compared to earnings management studies in previous literature. For this reason, we keep these observations in the model in our analysis. This may explain why these values are slightly higher than the values of the same earnings management measures in previous research.

3.7.2. Correlation analysis

Tables 3 shows Person correlation for the variables used in the study. Abnormal management tone is significantly correlated only with revenues growth with a coefficient at (-0.1060) at (p-value <0.05), suggesting that firms that have more growth in revenues, are more likely to manipulate in their words positively during earnings conference call. The lack of significant

⁶ These outliers are after wonsorising 1%.

level in correlation coefficients between abnormal tone and others variables might be attributed to the small sample size of this study relatively compared to the sample size in previous research. It is clearly evident from table 3 that management tone is negatively correlated with audience tone with a coefficient at (-0.2977) at (p-value <0.05).

Variable	Ν	Minimum	Mean	Median	Maximum	Range	Std. Dev.
Tone_All	955	-0.234	0.247	0.256	0.622	0.856	0.176
Tone	901	-0.170	0.340	0.343	0.718	0.888	0.179
Audience_Tone	901	-0.442	-0.099	-0.096	0.045	0.487	0.040
Normal_Tone	840	0.063	0.343	0.360	0.499	0.437	0.090
Ab_Tone	840	-0.401	0.001	0.007	0.323	0.725	0.151
DA_J	1717	-3.565	0.487	0.084	8.671	12.236	1.485
DA_MJ	1694	-3.622	0.457	0.078	8.921	12.543	1.487
REM	1735	-10.051	0.265	-0.005	12.195	22.246	2.518
ERN	1745	-0.231	0.065	0.058	0.397	0.628	0.088
RET	1618	-0.798	0.186	0.142	2.039	2.838	0.447
Size	1659	1.771	3.214	3.106	4.999	3.228	0.644
BTM	1657	-0.110	0.566	0.388	4.470	4.581	0.625
STD_RET	1743	0.000	0.084	0.074	0.262	0.262	0.045
ERN_volatility	1767	0.004	0.053	0.031	0.467	0.463	0.068
Age	1763	0.000	1.236	1.301	1.716	1.716	0.419
Bus_Segments	1884	0.301	0.678	0.699	1.230	0.929	0.253
Geographic_segments	1884	0.301	0.727	0.778	1.342	1.041	0.255
Loss	1745	0.000	0.140	0.000	1.000	1.000	0.348
Δ ERN	1705	-0.312	0.000	0.002	0.313	0.626	0.076
AFE	1628	-1.203	-0.045	-0.006	0.136	1.339	0.160
AF	1592	-0.105	0.077	0.069	0.487	0.592	0.065
PPE	1732	0.007	0.553	0.454	2.042	2.035	0.433
REV_Growth	1720	-0.484	0.075	0.047	1.306	1.789	0.221
DEBT_TO_EQY	1711	0.000	0.897	0.466	10.989	10.989	1.573
Issue	1755	0.000	0.745	1.000	1.000	1.000	0.436
FTSE_350	1890	0.000	0.752	1.000	1.000	1.000	0.432

 Table (2): Descriptive statistics

Tone_All is the optimistic tone in the whole earnings conference call measured by calculating the difference between the positive and negative words in the whole earnings conference call scaled by the summation between them, based on word lists from Loughran and McDonald (2011). **Audience_Tone** is the difference between the positive and negative words spoken by audience (not managers), who attend the earnings conference call scaled by the summation between them, based on word lists from Loughran and McDonald (2011). **Audience_Tone** is the difference between the positive and negative words spoken by audience (not managers), who attend the earnings conference call scaled by the summation between them, based on word lists from Loughran and McDonald (2011). **Normal_Tone** is the expected management positive tone obtained after running the regression of the tone model. **Ab_Tone** is abnormal management positive tone, which is measured as the residual from the regression of the tone model. **DA_J** is discretionary accrual through cash flow approach according to Jones model. **DA_MJ** is discretionary accrual through cash flow approach according to Modified Jones model. **REM** is the summation between the abnormal level of discretionary expenses multiplied by -1, which express the aggregated measure of real earnings management. All other variables are described in appendix (C).

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1) Tone_All	1.0000												
(2) Tone	0.9749*	1.0000											
(3) Audience_Tone	-0.0777*	-0.2977*	1.0000										
(4) Normal_Tone	0.5201*	0.5143*	-0.0792*	1.0000									
(5) Ab_Tone	0.8247*	0.8557*	-0.3073*	0.0057	1.0000								
(6) DA_J	0.0482	0.0625	-0.1091*	0.0870*	0.0136	1.0000							
7) DA_MJ	0.0500	0.0621	-0.1133*	0.0857*	0.0137	0.9819*	1.0000						
8) REM	-0.0220	-0.0085	-0.0711*	0.0368	-0.0318	0.4393*	0.4445*	1.0000					
9) ERN	0.2516*	0.2804*	-0.1418*	0.5217*	0.0175	0.1177*	0.1086*	0.0115	1.0000				
10) RET	0.2270*	0.2302*	-0.0624	0.3657*	0.0418	0.0391	0.0288	0.0960*	0.2832*	1.0000			
11) Size	-0.0483	0.0083	-0.0756*	-0.0101	-0.0041	-0.1579*	-0.1420*	-0.0718*	0.1288*	-0.0059	1.0000		
12) BTM	-0.1762*	-0.1896*	0.0782*	-0.2973*	-0.0649	-0.0500*	-0.0437	-0.0345	-0.2974*	-0.1759*	-0.3198*	1.0000	
13) STD_RET	-0.1989*	-0.2135*	0.0779*	-0.3941*	-0.0081	0.0634*	0.0598*	0.0463	-0.2550*	-0.1149*	-0.3635*	0.2524*	1.0000
(14) ERN_volatility	-0.1373*	-0.1284*	-0.0128	-0.2774*	-0.0051	0.1449*	0.1490*	0.0581*	-0.0086	-0.0615*	-0.1308*	0.0327	0.3421*
(15) Age	0.1037*	0.0816*	0.0755*	0.0963*	0.0038	-0.1996*	-0.1955*	-0.1575*	0.0373	0.0642*	0.1719*	-0.0220	-0.2510*
(16) Bus_Segments	-0.0841*	-0.0525	-0.0855*	-0.0968*	-0.0046	-0.1137*	-0.0946*	-0.0878*	0.0002	0.0185	0.2271*	-0.0269	-0.1388*
17) Geographic_segments	-0.2266*	-0.2060*	0.0218	-0.3906*	0.0007	-0.0693*	-0.0581*	-0.0891*	-0.0097	-0.0810*	0.2378*	-0.0782*	0.0419
(18) Loss	-0.2428*	-0.2427*	0.0619	-0.4844*	-0.0034	0.0587*	0.0643*	0.0517*	-0.6008*	-0.2272*	-0.1503*	0.2113*	0.3490*
(19) Δ ERN	0.1379*	0.1415*	-0.0348	0.2342*	0.0140	0.0782*	0.0723*	0.0379	0.4298*	0.2292*	0.0208	-0.0728*	-0.0878*
20) AFE	0.1842*	0.1895*	-0.0705*	0.3908*	-0.0030	0.0239	0.0200	0.0272	0.4799*	0.2426*	0.2165*	-0.3758*	-0.4044*
21) AF	0.0283	0.0165	0.0085	0.0413	0.0015	-0.1024*	-0.1021*	-0.0284	0.1381*	0.0939*	-0.2179*	0.3168*	-0.0163
22) PPE	-0.1679*	-0.1542*	0.0200	-0.2880*	0.0182	-0.0387	-0.0223	-0.0777*	-0.0905*	-0.0545*	0.0453	0.0828*	0.0802*
23) REV_Growth	0.0950*	0.1428*	-0.1856*	0.1267*	0.1060*	0.1310*	0.1262*	0.0364	0.2250*	0.1502*	-0.0030	-0.0489*	0.0118
24) DEBT_TO_EQY	0.0064	0.0113	0.0601	0.0060	0.0033	-0.0828*	-0.0718*	-0.0579*	-0.1296*	-0.0393	0.0555*	-0.1322*	-0.0030
25) Issue	0.0451	0.0515	-0.0479	0.0207	0.0272	-0.0107	-0.0056	0.0083	-0.0512*	-0.0086	0.0928*	-0.0630*	-0.0460
26) FTSE 350	0.0934*	0.1104*	-0.0285	0.1696*	0.0069	-0.1527*	-0.1419*	-0.1026*	0.2275*	0.1116*	0.4552*	-0.1902*	-0.1780*

* indicates statistical significance at the 5% level. All variables are defined in appendix (C).

Variable	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
(14) ERN_volatility	1.0000												
(15) Age	-0.2727*	1.0000											
(16) Bus_Segments	-0.1563*	0.1601*	1.0000										
(17) Geographic_segments	0.0194	0.1256*	0.2758*	1.0000									
(18) Loss	0.2345*	-0.1541*	-0.0669*	0.0135	1.0000								
(19) Δ ERN	-0.0500*	0.0125	-0.0172	-0.0526*	-0.2878*	1.0000							
(20) AFE	-0.1175*	0.1039*	-0.0233	-0.0303	-0.4986*	0.3349*	1.0000						
(21) AF	-0.0983*	0.0902*	0.0958*	-0.0479	-0.1704*	0.0557*	-0.0334	1.0000					
(22) PPE	0.0263	-0.0379	-0.0654*	-0.0069	0.0772*	0.0005	-0.0580*	-0.0479	1.0000				
(23) REV_Growth	0.1932*	-0.1740*	-0.1335*	-0.0691*	-0.0927*	0.1381*	0.1598*	0.0404	0.0239	1.0000			
(24) DEBT_TO_EQY	-0.1109*	-0.0054	0.1080*	-0.0800*	0.0783*	-0.0107	-0.1343*	0.0590*	0.1370*	-0.1317*	1.0000		
(25) Issue	-0.0963*	0.0933*	0.0163	0.0663*	0.0007	-0.0595*	-0.0283	-0.0391	-0.0006	0.0810*	0.0367	1.0000	
(26) FTSE_350	-0.1348*	0.1011*	0.1807*	0.1160*	-0.2520*	0.0313	0.2797*	-0.0695*	0.0071	0.0692*	-0.0539*	0.0708*	1.0000

Table (3): Person correlation (Cont.)

* indicates statistical significance at the 5% level. All variables are defined in appendix (C).

4. Empirical results

4.1. Management Tone Model

Table 4 presents the regression results of tone model to obtain the abnormal management tone. The results are generally consistent with prior literature (D'Augusta and DeAngelis, 2017; Huang et al., 2014; Li, 2010). We find that management tone during earnings conference call is more positive when the firm is more profitable, and has higher stock returns, and more business segments, while it is more negative when the firm has more volatile stock returns and more geographic segments, and when the firm's market valuation is poor relative to its book value. The residual from this regression represents the abnormal management tone.

	Dependent vari	able: Tone
Variable	Coefficient	p-Value
ERN	0.532***	(0.000)
RET	0.02**	(0.025)
Size	-0.017	(0.153)
BTM	-0.003**	(0.041)
STD_RET	-0.312*	(0.081)
ERN_volatility	-0.025	(0.791)
Age	-0.029	(0.117)
Bus_Segments	0.056**	(0.044)
Geographic_segments	-0.07***	(0.006)
Loss	-0.022	(0.324)
Δ ERN	-0.094	(0.219)
AFE	0.001	(0.945)
AF	-0.02	(0.751)
_cons	0.542***	(0.000)
Industry	Included	
Year	Included	
Mean VIF	5.28	
No. of Observations	840	
Fstat (P Value)	(0.00)	
R-squared (%)	26.83	
Adjusted R-squared (%)	23.39	

 Table (4): Tone regression

p-values are reported between brackets. ***,** and * denote statistical significance at the 1%, 5% and 10% levels, respectively. All variables are defined in appendix (C).

4.2. Earnings Management and Abnormal Tone

As discussed earlier, firms the meet or just beat earnings benchmark are more likely to manipulate in earnings and in their tone as well than other firms for self-serving purposes. Therefore, the behaviour in meeting or just beating the earnings benchmark can be considered as self-serving behaviour in reporting and communication. As the focus in this study is on the self-serving behaviour, we take into account this behaviour in our analysis. In particular, we examine the effect of the interaction between earnings management and firms that just meet or beat the earnings benchmark on abnormal management tone in earnings conference call.

The earnings benchmark used in this paper is last year earnings per share. For validity concern, we use three small positive numbers to classify firms with just hit the earnings benchmark.⁷ Clearly, firms are considered with just beating the benchmark, when change in earnings per share is \in [£0, £0.01], [£0, £0.02], or [£0, £0.03]. We apply panel fixed effect regression for firm and year (equation 6) by using the abnormal tone as dependent variable, and the interaction between one of earnings management proxies (DA_J, or REM) and firms that just meet or beat the target as independent variable with control variables described in subsection (3.5)⁸. Standard errors in each regression are clustered at the firm level. Tables (5 and 6) show the estimation results of examining the relationship between the interaction between earnings management and firms that just meet or beat the earnings benchmark, and abnormal management tone in earnings conference call. Followings are discussions' results of each table.

4.2.1. Accrual Earnings Management and Abnormal Tone

Table (5) presents the regression results when we use discretionary accruals based on Jones (1991) model as a proxy of accruals earnings management. When we use (0.02), or (0.03) as small positive numbers to classify firms that just hit the benchmark, the results of these regressions are significant with positive sign. The Ab_Tone coefficients are (0.020) and (0.021) with p value (0.012) and (0.008) for the interaction between discretionary accruals and firms that just meet or beat the earnings benchmark when small positive earnings number used is (0.02), and (0.03), respectively. This supports our prediction that firms that just meet or beat the earnings benchmark and have more discretionary accruals provide more abnormal tone in

⁷ In robustness tests, we use another earnings benchmark with different values as small positive number as well, which is last year earnings before extra-ordinary item divided by total asset and we obtain similar results.

⁸ The earnings conference call of any firm occurs after issuing the financial data related to earnings management and the other variables used in equation (6). Therefore, there is no endogeneity problem in term of reversal causal effect. However, to control for endogeneity problem that may happen due to other issues, we apply fixed effect regression for firm and year with unbalanced data, and we use huge number of control variables used in previous research related to tone or earnings management.

their earnings conference call. However, there is no association if the small positive number used is (0.01).

		-		Dependent varia	ble: Ab_Tone	;		
				JMBE = 1 wh	en $\Delta EPS \in$			
		[£0, £0.01]		[£0, £0		[£0, £0.03]		
	Sign	Coefficient	p-Value	Coefficient	p-Value	Coefficient	p-Value	
Regression res	sults							
DA J×JMBE	+	0.002	(0.857)	0.020**	(0.012)	0.021***	(0.008)	
DAJ	-	-0.022***	(0.006)	-0.028***	(0.001)	-0.029***	(0.001)	
JMBE	+	0.020	(0.401)	0.017	(0.391)	0.011	(0.531)	
ERN	-	-0.193	(0.240)	-0.187	(0.246)	-0.188	(0.243)	
RET	-	-0.023	(0.136)	-0.023	(0.132)	-0.023	(0.133)	
Size	+	0.129**	(0.017)	0.129**	(0.015)	0.129**	(0.015)	
BTM	-	-0.05*	(0.065)	-0.051*	(0.062)	-0.051*	(0.061)	
STD RET	+	0.141	(0.430)	0.155	(0.387)	0.156	(0.381)	
ERN volatility	-	-0.423***	(0.007)	-0.399**	(0.013)	-0.401**	(0.012)	
Age	+	0.344***	(0.001)	0.348***	(0.001)	0.347***	(0.001)	
Loss	+	0.007	(0.726)	0.006	(0.775)	0.006	(0.779)	
Δ ERN	+	0.199**	(0.030)	0.204**	(0.025)	0.205**	(0.025)	
AFE	-	-0.113*	(0.054)	-0.118**	(0.041)	-0.118**	(0.042)	
AF	+	0.456***	(0.000)	0.446***	(0.000)	0.449***	(0.000)	
PPE	-	-0.023	(0.676)	-0.021	(0.702)	-0.022	(0.684)	
REV Growth	+	0.020	(0.633)	0.015	(0.731)	0.015	(0.720)	
DEBT TO EQY	-	-0.008	(0.257)	-0.008	(0.258)	-0.008	(0.262)	
Issue	-	-0.007	(0.595)	-0.006	(0.655)	-0.006	(0.647)	
FTSE 350	-	-0.072**	(0.034)	-0.073**	(0.030)	-0.073**	(0.031)	
_cons	-	-0.835***	(0.000)	-0.844***	(0.000)	-0.844***	(0.000)	
– Year		Included		Included		Included		
Observations with J	MBE = 1	31		67		88		
Total number of observations		814		814		814		
Number of groups		199		199		199		
Fstat (P Value)		(0.000)		(0.000)		(0.000)		
Mean VIF		4.91		4.95		4.96		
Hausman test-Prob>	>chi2 (%)	(0.040)		(0.090)		(0.060)		
Breusch-Pagan LM Prob>chi2 (%)	test-	0		0		0		
R-squared (%)		9.74		10.17		10.14		

Table (5): the association between abnormal tone, and the interaction between discretionary accruals (Jones model) and firms that just beat or meet the earnings benchmark (equation 6).

Standard errors are clustered at the firm level. All continuous variables are winsorized at 1% level. p-values are reported between brackets. ***,** and * denote statistical significance at the 1%, 5% and 10% levels, respectively. All variables are defined in appendix (C).

In unreported test, we run the regression in equation (6) again by using modified Jones model (Dechow et al., 1995) as a proxy of accrual earnings management as robustness check. The unreported results are similar to the above results. In sum, in case when we use (0.02) or (0.03) as targets of small positive number to classify firms with just beating the benchmark, firms that just hit the earnings benchmark and use more discretionary accruals in their reporting, provide more abnormal tone in their earnings conference call to conceal their manipulation for just attaining the earnings benchmark.

In case when we use (0.01) as a target of small positive number to classify firms with just beating the benchmark, only (31) observations just beat the target. Furthermore, in not tabulated test, there are no significant differences in the mean of discretionary accruals (i.e. both Jones model and modified Jones model proxies) between firms that just beat the benchmark and other firms, in case when (0.01) is used as a target of small positive number compared to other targets (i.e. (0.02) and (0.03))⁹. This indicates that (0.01) target does not motivate firms to use more discretionary accruals to just achieve this target. This may explain why there is no relationship between earnings management and abnormal tone management when we use (0.01) as an earnings target.

4.2.2. Real Earnings Management and Abnormal Tone

Table (6) presents the regression results of examining the relationship between the interaction between real earnings management and firms that just meet or beat the earnings benchmark, and abnormal of management tone in earnings conference call. For each earnings target, the interaction between real earnings management and just beating the benchmark is positively and significantly associated with abnormal tone in earnings conference call, suggesting that firms that just hit the earnings benchmark and exercise more real earnings management practices, disclose more abnormal tone in earnings conference call to conceal their manipulation in reporting for just attaining the earnings benchmark. In addition to the finding of the association between earnings management and abnormal tone, in each regression of equation (6) presented in tables (5, and 6), the results report that abnormal management tone in earnings conference call is more positive when the firm is large, old, growing, and has high earnings number relative

⁹ For each earnings target, we test separately if there are significant differences in the mean of discretionary accruals between group of firms that just beat the earnings benchmark and other firms, or not. When we use (0.02), or (0.03) of change in earnings per share as a small positive number of earnings target, we find that there are significant differences in the mean of discretionary accruals with higher value for firms that just beat the benchmark. In contrast, for (0.01) target, there are no significant differences in the mean of discretionary accruals between firms that just beat the benchmark and other firms. These results are not tabulated.

to analyst earnings' forecast. In contrast, it is more negative when the firm has higher book to market ratio, more volatile earnings, and higher value of analysts forecast error. Furthermore, the tables show that managers provide more abnormal tone in the year when the firm is excluded from FTSE 350 list.

				Dependent varia	ble: Ab_Tone	2		
				JMBE = 1 wh	en $\Delta EPS \in$			
		[£0, £0.01]		[£0, £0	0.02]	[£0, £0.03]		
	Sign	Coefficient	p-Value	Coefficient	p-Value	Coefficient	p-Value	
Regression res	sults							
REM × JMBE	+	0.021*	(0.061)	0.019***	(0.004)	0.020***	(0.002)	
REM	-	-0.004	(0.309)	-0.009*	(0.074)	-0.009*	(0.052)	
JMBE	+	0.027	(0.308)	0.023	(0.223)	0.016	(0.318)	
ERN	-	-0.162	(0.331)	-0.159	(0.333)	-0.16	(0.331)	
RET	-	-0.024	(0.108)	-0.025*	(0.091)	-0.026*	(0.087)	
Size	+	0.109**	(0.045)	0.108**	(0.047)	0.109**	(0.045)	
BTM	-	-0.048*	(0.078)	-0.050*	(0.071)	-0.049*	(0.074)	
STD RET	+	0.123	(0.495)	0.124	(0.492)	0.123	(0.496)	
ERN volatility	-	-0.370**	(0.019)	-0.356**	(0.026)	-0.355**	(0.026)	
Age	+	0.324***	(0.003)	0.322***	(0.003)	0.319***	(0.003)	
Loss	+	0.013	(0.525)	0.013	(0.536)	0.013	(0.536)	
Δ ERN	+	0.160*	(0.078)	0.162*	(0.074)	0.161*	(0.075)	
AFE	-	-0.104*	(0.080)	-0.107*	(0.071)	-0.106*	(0.073)	
AF	+	0.433***	(0.000)	0.437***	(0.000)	0.441***	(0.000)	
PPE	-	-0.029	(0.594)	-0.028	(0.606)	-0.03	(0.577)	
REV Growth	+	0.022	(0.595)	0.017	(0.677)	0.018	(0.665)	
DEBT TO EQY	-	-0.008	(0.263)	-0.008	(0.257)	-0.008	(0.265)	
Issue	-	-0.003	(0.813)	-0.002	(0.859)	-0.002	(0.869)	
FTSE 350	-	-0.066**	(0.049)	-0.067**	(0.050)	-0.066*	(0.052)	
_cons	-	-0.753***	(0.001)	-0.745***	(0.001)	-0.745***	(0.001)	
– Year		Included	. ,	Included	. ,	Included		
Observations with J	MBE = 1	31		67		88		
Total number of observations		814		814		814		
Number of groups		199		199		199		
Fstat (P Value)		(0.000)		(0.000)		(0.000)		
Mean VIF		4.95		4.97		4.98		
Hausman test-Prob>	>chi2 (%)	(2.270)		(1.300)		(1.060)		
Breusch-Pagan LM Prob>chi2 (%)	test-	0		0		0		
R-squared (%)		8.95		9.54		9.61		

 Table (6): the association between abnormal tone, and the interaction between real earnings management and firms that just beat or meet the earnings benchmarks (equation 6).

Standard errors are clustered at the firm level. All continuous variables are winsorized at 1% level. p-values are reported between brackets. ***,** and * denote statistical significance at the 1%, 5% and 10% levels, respectively. All variables are defined in appendix (C).

In sum, the evidence is consistent with our prediction that earnings management and tone management are associated and used as self-serving behaviour. This suggests that manager use earnings management and tone management strategies as complementary not substitute strategies.

5. Conclusion

This study examines the association between earnings management and abnormal positive tone used during earnings conference call in the UK by using a sample of non-financial firms listed in LSE and considered under FTSE 350 in any year during the sample period from 2010 to 2015. We provide evidence that firms that just beat last year earnings and have more accruals earnings management or real earnings management provide more abnormal positive tone in earnings conference call. This evidence suggests that managers are able to use both earnings management and tone management strategies to achieve their earnings benchmark. More clearly, managers who manipulate in the reported earnings to just beat the earnings target will employ their discretion to speak more optimistically during earnings conference call as an impression management technique to mislead users about their manipulation as self-serving behaviour. Therefore, earnings management and tone management are complementary strategies for managers, and users should take them into serious consideration, particularly, when firms just beat the earnings benchmark. Our results suggest that earnings conference call is used for obfuscation purposes, which highlight the need for increased accountability by firms on earnings conference call. Future research is needed to evaluate earnings conference call in the UK.

One limitation of this research is the relatively small sample size compared with previous research of earnings conference call. Overall, our findings are new to the literature and add to the understanding of using the tone in earnings conference call particularly in the UK market, and to the understanding of managerial practices used to achieve the earnings benchmark.

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Appendix A: The words' list developed by Loughran and McDonald (2011).

Positive Words

ABUNDANCE, ABUNDANT, ACCLAIMED, ACCOMPLISH, ACCOMPLISHED, ACCOMPLISHES, ABLE. ACCOMPLISHING, ACCOMPLISHMENT, ACCOMPLISHMENTS, ACHIEVE, ACHIEVED, ACHIEVEMENT, ACHIEVEMENTS, ACHIEVES, ACHIEVING, ADEQUATELY, ADVANCEMENT, ADVANCEMENTS, ADVANCES, ADVANCING, ADVANTAGE, ADVANTAGED, ADVANTAGEOUS, ADVANTAGEOUSLY, ADVANTAGES, ALLIANCE, ALLIANCES, ASSURE, ASSURED, ASSURES, ASSURING, ATTAIN, ATTAINED, ATTAINING, ATTAINMENT, ATTAINMENTS, ATTAINS, ATTRACTIVE, ATTRACTIVENESS, BEAUTIFUL, BEAUTIFULLY, BENEFICIAL, BENEFICIALLY, BENEFIT, BENEFITED, BENEFITING, BENEFITTED, BENEFITTING, BEST, BETTER, BOLSTERED, BOLSTERING, BOLSTERS, BOOM, BOOMING, BOOST, BREAKTHROUGH, BREAKTHROUGHS, BRILLIANT, CHARITABLE, COLLABORATE, BOOSTED, COLLABORATED, COLLABORATES, COLLABORATING, COLLABORATION, COLLABORATIONS, COLLABORATOR, COLLABORATORS, COMPLIMENTARY, COLLABORATIVE, COMPLIMENT, COMPLIMENTED, COMPLIMENTING, COMPLIMENTS, CONCLUSIVE, CONCLUSIVELY, CONDUCIVE, CONFIDENT. CONSTRUCTIVE, CONSTRUCTIVELY, COURTEOUS, CREATIVE, CREATIVELY, CREATIVENESS, CREATIVITY, DELIGHT, DELIGHTED, DELIGHTFUL, DELIGHTFULLY, DELIGHTING, DELIGHTS, DEPENDABILITY, DEPENDABLE, DESIRABLE, DESIRED, DESPITE, DESTINED, DILIGENT, DILIGENTLY, DISTINCTION, DISTINCTIONS, DISTINCTIVE, DISTINCTIVELY, DISTINCTIVENESS, DREAM, EASIER, EASILY, EASY, EFFECTIVE, EFFICIENCIES, EFFICIENCY, EFFICIENT, EFFICIENTLY, EMPOWER, EMPOWERED, EMPOWERING, EMPOWERS, ENABLE, ENABLED, ENABLES, ENABLING, ENCOURAGED, ENCOURAGES, ENCOURAGING, ENHANCE, ENHANCED, ENCOURAGEMENT, ENHANCEMENT, ENHANCEMENTS, ENHANCES, ENHANCING, ENJOY, ENJOYABLE, ENJOYABLY, ENJOYED, ENJOYING, ENJOYMENT, ENJOYS, ENTHUSIASM, ENTHUSIASTIC, ENTHUSIASTICALLY, EXCELLENCE, EXCELLENT, EXCELLING, EXCELS, EXCEPTIONAL, EXCEPTIONALLY, EXCITED, EXCITEMENT, EXCITING, EXCLUSIVE, EXCLUSIVELY, EXCLUSIVENESS, EXCLUSIVES, EXCLUSIVITY, EXEMPLARY, FANTASTIC, FAVORABLE, FAVORABLY, FAVORED, FAVORING, FAVORITE, FAVORITES, FRIENDLY, GAIN, GAINED, GAINING, GAINS, GOOD, GREAT, GREATER, GREATEST, GREATLY, GREATNESS, HAPPIEST, HAPPILY, HAPPINESS, HAPPY, HIGHEST, HONOR, HONORABLE, HONORED, HONORING, HONORS, IDEAL, IMPRESS, IMPRESSED, IMPRESSES, IMPRESSING, IMPRESSIVE, IMPRESSIVELY, IMPROVE, IMPROVED, IMPROVEMENT, IMPROVEMENTS, IMPROVES, IMPROVING, INCREDIBLE, INCREDIBLY, INFLUENTIAL, INFORMATIVE, INGENUITY, INNOVATE, INNOVATED, INNOVATES, INNOVATING, INNOVATION, INNOVATIONS, INNOVATIVE, INNOVATIVENESS, INNOVATOR, INNOVATORS, INSIGHTFUL, INSPIRATION, INSPIRATIONAL, INTEGRITY, INVENT, INVENTED, INVENTING, INVENTION, INVENTIONS, INVENTIVE, INVENTIVENESS, INVENTOR, INVENTORS, LEADERSHIP, LEADING, LOYAL, LUCRATIVE, MERITORIOUS, OPPORTUNITIES, OPPORTUNITY, OPTIMISTIC, OUTPERFORM, OUTPERFORMED, OUTPERFORMING, OUTPERFORMS, PERFECT, PERFECTED, PERFECTLY, PERFECTS, PLEASANT, PLEASANTLY, PLEASED, PLEASURE, PLENTIFUL, POPULAR, POPULARITY, POSITIVE, POSITIVELY, PREEMINENCE, PREEMINENT, PREMIER, PREMIERE, PRESTIGE, PRESTIGIOUS, PROACTIVE, PROACTIVELY, PROFICIENCY, PROFICIENT, PROFICIENTLY, PROFITABILITY, PROFITABLE, PROFITABLY, PROGRESS, PROGRESSED, PROGRESSES, PROGRESSING, PROSPERED, PROSPERING, PROSPERITY, PROSPEROUS, PROSPERS, REBOUND, REBOUNDED, REBOUNDING, RECEPTIVE, REGAIN, REGAINED, REGAINING, RESOLVE, REVOLUTIONIZE, REVOLUTIONIZED, REVOLUTIONIZES, REVOLUTIONIZING, REWARD, REWARDED, REWARDING, REWARDS, SATISFACTION, SATISFACTORILY, SATISFACTORY, SATISFIED, SATISFIES, SATISFY, SATISFYING, SMOOTH, SMOOTHING, SMOOTHLY, SMOOTHS, SOLVES, SOLVING, SPECTACULAR, SPECTACULARLY, STABILITY, STABILIZATION, STABILIZATIONS, STABILIZE, STABILIZED, STABILIZES, STABILIZING, STABLE, STRENGTH, STRENGTHEN, STRENGTHENED, STRENGTHENING, STRENGTHENS, STRENGTHS, STRONG, STRONGER, STRONGEST, SUCCEED, SUCCEEDED, SUCCEEDING, SUCCEEDS, SUCCESS, SUCCESSES, SUCCESSFUL, SUCCESSFULLY, SUPERIOR, SURPASS, SURPASSED, SURPASSES, SURPASSING, TRANSPARENCY, TREMENDOUS, TREMENDOUSLY, UNMATCHED, UNPARALLELED, UNSURPASSED, UPTURN, UPTURNS, VALUABLE, VERSATILE, VERSATILITY, VIBRANCY, VIBRANT, WIN, WINNER, WINNERS, WINNING, WORTHY.

Negative Words

ABANDON, ABANDONED, ABANDONING, ABANDONMENT, ABANDONMENTS, ABANDONS, ABDICATED, ABDICATES, ABDICATING, ABDICATION, ABDICATIONS, ABERRANT, ABERRATION, ABERRATIONAL, ABERRATIONS, ABETTING, ABNORMAL, ABNORMALITIES, ABNORMALITY, ABNORMALLY, ABOLISH, ABOLISHED, ABOLISHES, ABOLISHING, ABROGATE, ABROGATED, ABROGATES, ABROGATING, ABROGATION, ABROGATIONS, ABRUPT, ABRUPTLY, ABRUPTNESS, ABSENCE, ABSENCES, ABSENTEEISM, ABUSE, ABUSED, ABUSES, ABUSING, ABUSIVE, ABUSIVELY, ABUSIVENESS, ACCIDENT, ACCIDENTAL, ACCIDENTALLY, ACCIDENTS, ACCUSATION, ACCUSATIONS, ACCUSE, ACCUSED, ACCUSES, ACCUSING, ACQUIESCE, ACQUIESCED, ACQUIESCES, ACQUIESCING, ACQUIT, ACQUITS, ACQUITTAL, ACQUITTALS, ACQUITTED, ACQUITTING, ADULTERATE, ADULTERATED, ADULTERATING, ADULTERATION, ADULTERATIONS, ADVERSARIAL, ADVERSARIES, ADVERSARY, ADVERSE, ADVERSELY, ADVERSITIES, ADVERSITY, AFTERMATH, AFTERMATHS, AGAINST, AGGRAVATE, AGGRAVATED, AGGRAVATES, AGGRAVATING, AGGRAVATION, AGGRAVATIONS, ALERTED, ALERTING, ALIENATE, ALIENATED, ALIENATES, ALIENATING, ALIENATION, ALIENATIONS, ALLEGATION, ALLEGATIONS, ALLEGE, ALLEGED, ALLEGEDLY, ALLEGES, ALLEGING, ANNOY, ANNOYANCE, ANNOYANCES, ANNOYED, ANNOYING, ANNOYS, ANNUL, ANNULLED, ANNULLING, ANNULMENT, ANNULMENTS, ANNULS, ANOMALIES, ANOMALOUS, ANOMALOUSLY, ANOMALY, ANTICOMPETITIVE, ANTITRUST, ARGUE, ARGUED, ARGUING, ARGUMENT, ARGUMENTATIVE, ARGUMENTS, ARREARAGE, ARREARAGES, ARREARS, ARREST, ARRESTED, ARRESTS, ARTIFICIALLY, ASSAULT, ASSAULTED, ASSAULTING, ASSAULTS, ASSERTIONS, ATTRITION, AVERSELY, BACKDATING, BAD, BAIL, BAILOUT, BALK, BALKED, BANKRUPT, BANKRUPTCIES, BANKRUPTCY, BANKRUPTED, BANKRUPTING, BANKRUPTS, BANS, BARRED, BARRIER, BARRIERS, BOTTLENECK, BOTTLENECKS, BOYCOTT, BOYCOTTED, BOYCOTTING, BOYCOTTS, BREACH, BREACHED, BREACHES, BREACHING, BREAK, BREAKAGE, BREAKAGES, BREAKDOWN, BREAKDOWNS, BREAKING, BREAKS, BRIBE, BRIBED, BRIBERIES, BRIBERY, BRIBES, BRIBING, BRIDGE, BROKEN, BURDEN, BURDENED, BURDENING, BURDENS, BURDENSOME, BURNED, CALAMITIES, CALAMITOUS, CALAMITY, CANCEL, CANCELED, CANCELING, CANCELLATION, CANCELLATIONS, CANCELLED, CANCELLING, CANCELS, CARELESS, CARELESSLY, CARELESSNESS, CATASTROPHE, CATASTROPHES, CATASTROPHIC, CATASTROPHICALLY, CAUTION, CAUTIONARY, CAUTIONED, CAUTIONING, CAUTIONS, CEASE, CEASED, CEASES, CEASING, CENSURE, CENSURED, CENSURES, CENSURING, CHALLENGE, CHALLENGED, CHALLENGES, CHALLENGING, CHARGEOFFS, CIRCUMVENT, CIRCUMVENTED, CIRCUMVENTING, CIRCUMVENTION, CIRCUMVENTIONS, CIRCUMVENTS, CLAIMING, CLAIMS, CLAWBACK, CLOSED, CLOSEOUT, CLOSEOUTS, CLOSING, CLOSINGS, CLOSURE, CLOSURES, COERCE, COERCED, COERCES, COERCING, COERCION, COERCIVE, COLLAPSE, COLLAPSED, COLLAPSES, COLLAPSING, COLLISION, COLLISIONS, COLLUDE, COLLUDED, COLLUDES, COLLUDING, COLLUSION, COLLUSIONS, COLLUSIVE, COMPLAIN, COMPLAINED, COMPLAINING, COMPLAINS, COMPLAINT, COMPLAINTS, COMPLICATE, COMPLICATED, COMPLICATES, COMPLICATING, COMPLICATION, COMPLICATIONS, COMPULSION, CONCEALED, CONCEALING, CONCEDE, CONCEDED, CONCEDES, CONCEDING, CONCERN, CONCERNED, CONCERNS, CONCILIATING, CONCILIATION, CONCILIATIONS, CONDEMN, CONDEMNATION, CONDEMNATIONS, CONDEMNED, CONDEMNING, CONDEMNS, CONDONE, CONDONED, CONFESS, CONFESSED, CONFESSES, CONFESSING, CONFESSION, CONFINE, CONFINED, CONFINEMENT, CONFINEMENTS, CONFINES, CONFINING. CONFISCATE, CONFISCATED, CONFISCATES, CONFISCATING, CONFISCATION, CONFISCATIONS, CONFLICT, CONFLICTED, CONFLICTING, CONFLICTS, CONFRONT, CONFRONTATION, CONFRONTATIONAL, CONFRONTATIONS, CONFRONTED, CONFRONTING, CONFRONTS, CONFUSE, CONFUSED, CONFUSES, CONFUSING, CONFUSINGLY, CONFUSION, CONSPIRACIES, CONSPIRACY, CONSPIRATOR, CONSPIRATORIAL, CONSPIRATORS, CONSPIRE, CONSPIRED, CONSPIRES, CONSPIRING, CONTEMPT, CONTEND, CONTENDED, CONTENDING, CONTENDS, CONTENTION, CONTENTIONS, CONTENTIOUS, CONTENTIOUSLY, CONTESTED, CONTESTING, CONTRACTION, CONTRACTIONS, CONTRADICTING, CONTRADICTION, CONTRADICT, CONTRADICTED, CONTRADICTIONS, CONTRADICTORY, CONTRADICTS, CONTRARY, CONTROVERSIAL, CONTROVERSIES, CONTROVERSY, CONVICT, CONVICTED, CONVICTING, CONVICTION, CONVICTIONS, CORRECTED, CORRECTING, CORRECTION, CORRECTS, CORRUPT, CORRUPTED, CORRUPTING, CORRUPTION, CORRUPTIONS, CORRUPTLY, CORRUPTNESS, COSTLY, COUNTERCLAIM, COUNTERCLAIMED, COUNTERCLAIMING, COUNTERCLAIMS, COUNTERFEIT, COUNTERFEITED, COUNTERFEITER, COUNTERFEITERS, COUNTERFEITING, COUNTERFEITS, COUNTERMEASURE, COUNTERMEASURES,

CRIME, CRIMES, CRIMINAL, CRIMINALLY, CRIMINALS, CRISES, CRISIS, CRITICAL, CRITICALLY, CRITICISM, CRITICISMS, CRITICIZE, CRITICIZED, CRITICIZES, CRITICIZING, CRUCIAL, CRUCIALLY, CULPABILITY, CULPABLE, CULPABLY, CUMBERSOME, CURTAIL, CURTAILED, CURTAILING, CURTAILMENT, CURTAILMENTS, CURTAILS, CUT, CUTBACK, CUTBACKS, CYBERATTACK, CYBERBULLYING. CYBERCRIME, CYBERCRIMES, CYBERATTACKS. CYBERCRIMINAL. CYBERCRIMINALS, DAMAGE, DAMAGED, DAMAGES, DAMAGING, DAMPEN, DAMPENED, DANGER, DANGEROUS, DANGEROUSLY, DANGERS, DEADLOCK, DEADLOCKED, DEADLOCKING, DEADLOCKS, DEADWEIGHT, DEADWEIGHTS, DEBARMENT, DEBARMENTS, DEBARRED, DECEASED, DECEIT, DECEITFUL, DECEITFULNESS, DECEIVE, DECEIVED, DECEIVES, DECEIVING, DECEPTION, DECEPTIONS, DECEPTIVE, DECEPTIVELY, DECLINE, DECLINED, DECLINES, DECLINING, DEFACE, DEFACED, DEFACEMENT, DEFAMATION, DEFAMATIONS, DEFAMATORY, DEFAME, DEFAMED, DEFAMES, DEFAMING, DEFAULT, DEFAULTED, DEFAULTING, DEFAULTS, DEFEAT, DEFEATED, DEFEATING, DEFEATS, DEFECT, DEFECTIVE, DEFECTS, DEFEND, DEFENDANT, DEFENDANTS, DEFENDED, DEFENDING, DEFENDS, DEFENSIVE, DEFER, DEFICIENCIES, DEFICIENCY, DEFICIENT, DEFICIT, DEFICITS, DEFRAUD, DEFRAUDED, DEFRAUDING, DEFRAUDS, DEFUNCT, DEGRADATION, DEGRADATIONS, DEGRADE, DEGRADED, DEGRADES, DEGRADING, DELAY, DELAYED, DELAYING, DELAYS, DELETERIOUS, DELIBERATE, DELIBERATED, DELIBERATELY, DELINQUENCIES, DELINQUENCY, DELINQUENT, DELINQUENTLY, DELINQUENTS, DELIST, DELISTED, DELISTING, DELISTS, DEMISE, DEMISED, DEMISES, DEMISING, DEMOLISH, DEMOLISHED, DEMOLISHES, DEMOLISHING, DEMOLITION, DEMOLITIONS, DEMOTE, DEMOTED, DEMOTES, DEMOTING, DEMOTION, DEMOTIONS, DENIAL, DENIALS, DENIED, DENIGRATE, DENIGRATED, DENIGRATES, DENIGRATING, DENIGRATION, DENY, DENYING, DEPLETE, DEPLETED, DEPLETES, DEPLETING, DEPLETION, DEPLETIONS, DEPRECATION, DEPRESS, DEPRESSED, DEPRESSES, DEPRESSING, DEPRIVATION, DEPRIVE, DEPRIVED, DEPRIVES, DEPRIVING, DERELICT, DERELICTION, DEROGATORY, DESTABILIZATION, DESTABILIZE, DESTABILIZED, DESTABILIZING, DESTROY, DESTROYED, DESTROYING, DESTROYS, DESTRUCTION, DESTRUCTIVE, DETAIN, DETAINED, DETENTION, DETENTIONS, DETER, DETERIORATE, DETERIORATED, DETERIORATES, DETERIORATING, DETERIORATION, DETERIORATIONS, DETERRED, DETERRENCE, DETERRENCES, DETERRENT, DETERRENTS, DETERRING, DETERS, DETRACT, DETRACTED, DETRACTING, DETRIMENT, DETRIMENTAL, DETRIMENTALLY, DETRIMENTS, DEVALUE, DEVALUED, DEVALUES, DEVALUING, DEVASTATE, DEVASTATED, DEVASTATING, DEVASTATION, DEVIATE, DEVIATED, DEVIATES, DEVIATING, DEVIATION, DEVIATIONS, DEVOLVE, DEVOLVED, DEVOLVES, DEVOLVING, DIFFICULT, DIFFICULTIES, DIFFICULTLY, DIFFICULTY, DIMINISH, DIMINISHED, DIMINISHES, DIMINISHING, DIMINUTION, DISADVANTAGE, DISADVANTAGED, DISADVANTAGEOUS, DISADVANTAGES, DISAFFILIATION, DISAGREE, DISAGREEABLE, DISAGREED, DISAGREEING, DISAGREEMENT, DISAGREEMENTS, DISAGREES, DISALLOW, DISALLOWANCE, DISALLOWANCES, DISALLOWED, DISALLOWING, DISALLOWS, DISAPPEAR, DISAPPEARANCE, DISAPPEARANCES, DISAPPEARED, DISAPPEARING, DISAPPEARS, DISAPPOINT, DISAPPOINTED, DISAPPOINTING, DISAPPOINTINGLY, DISAPPOINTMENT, DISAPPOINTMENTS, DISAPPOINTS, DISAPPROVAL, DISAPPROVALS, DISAPPROVE, DISAPPROVED, DISAPPROVES, DISAPPROVING, DISASSOCIATES, DISASSOCIATING, DISASSOCIATION, DISASSOCIATIONS, DISASTER, DISASTERS, DISASTROUS, DISASTROUSLY, DISAVOW, DISAVOWAL, DISAVOWED, DISAVOWING, DISAVOWS, DISCIPLINARY, DISCLAIM, DISCLAIMED, DISCLAIMER, DISCLAIMERS, DISCLAIMING, DISCLAIMS, DISCLOSE, DISCLOSED, DISCLOSES, DISCLOSING, DISCONTINUANCE, DISCONTINUATION, DISCONTINUATIONS, DISCONTINUE, DISCONTINUED, DISCONTINUES, DISCONTINUING, DISCOURAGE, DISCOURAGED, DISCOURAGES, DISCOURAGING, DISCREDIT, DISCREDITED, DISCREDITING. DISCREDITS, DISCREPANCIES, DISCREPANCY, DISFAVOR, DISFAVORED, DISFAVORING, DISFAVORS, DISGORGE, DISGORGED, DISGORGEMENT, DISGORGEMENTS, DISGORGES, DISGORGING, DISGRACE, DISGRACEFUL, DISGRACEFULLY,

DISHONEST, DISHONESTLY, DISHONESTY, DISHONOR, DISHONORABLE, DISHONORABLY, DISHONORED, DISHONORING, DISHONORS, DISINCENTIVES, DISINTERESTED, DISINTERESTEDLY, DISINTERESTEDNESS, DISLOYAL, DISLOYALLY, DISLOYALTY, DISMAL, DISMALLY, DISMISS, DISMISSAL, DISMISSALS, DISMISSED, DISMISSES, DISMISSING, DISORDERLY, DISPARAGE, DISPARAGED, DISPARAGEMENT, DISPARAGEMENTS, DISPARAGES, DISPARAGING, DISPARAGINGLY, DISPARITIES, DISPARITY, DISPLACE, DISPLACED, DISPLACEMENT, DISPLACEMENTS, DISPLACES, DISPLACING, DISPOSE, DISPOSSESS, DISPOSSESSED, DISPOSSESSES, DISPOSSESSING, DISPROPORTION, DISPROPORTIONAL, DISPROPORTIONATE, DISPROPORTIONATELY, DISPUTE, DISPUTED, DISPUTES, DISPUTING, DISQUALIFICATION, DISQUALIFICATIONS, DISQUALIFIED, DISQUALIFIES, DISQUALIFY, DISQUALIFYING, DISREGARD, DISREGARDED, DISREGARDING, DISREGARDS, DISREPUTABLE, DISREPUTE, DISRUPT, DISRUPTED, DISRUPTING, DISRUPTION, DISRUPTIONS, DISRUPTIVE, DISRUPTS, DISSATISFACTION, DISSATISFIED, DISSENT, DISSENTED, DISSENTER, DISSENTERS, DISSENTING, DISSENTS, DISSIDENT, DISSIDENTS, DISSOLUTION, DISSOLUTIONS, DISTORT, DISTORTED, DISTORTING, DISTORTION, DISTORTIONS, DISTORTS, DISTRACT, DISTRACTED, DISTRACTING, DISTRACTION, DISTRACTIONS, DISTRACTS, DISTRESS, DISTRESSED, DISTURB, DISTURBANCE, DISTURBANCES, DISTURBED, DISTURBING, DISTURBS, DIVERSION, DIVERT, DIVERTED, DIVERTING, DIVERTS, DIVEST, DIVESTED, DIVESTING, DIVESTITURE, DIVESTITURES, DIVESTMENT, DIVESTMENTS, DIVESTS, DIVORCE, DIVULGE, DIVULGE, DIVULGED, DIVULGES, DIVULGING, DOUBT, DOUBTED, DOUBTFUL, DOUBTS, DOWNGRADE, DOWNGRADED, DOWNGRADES, DOWNGRADING, DOWNSIZE, DOWNSIZED, DOWNSIZES, DOWNSIZING, DOWNSIZINGS, DOWNTIME, DOWNTIMES, DOWNTURN, DOWNTURNS, DOWNWARD, DOWNWARDS, DRAG, DRASTIC, DRASTICALLY, DRAWBACK, DRAWBACKS, DROPPED, DROUGHT, DROUGHTS, DURESS, DYSFUNCTION, DYSFUNCTIONAL, DYSFUNCTIONS, EASING, EGREGIOUS, EGREGIOUSLY, EMBARGO, EMBARGOED, EMBARGOES, EMBARGOING, EMBARRASS, EMBARRASSED, EMBARRASSES, EMBARRASSING, EMBARRASSMENT, EMBARRASSMENTS, EMBEZZLE, EMBEZZLED, EMBEZZLEMENT, EMBEZZLEMENTS, EMBEZZLER, EMBEZZLES, EMBEZZLING, ENCROACH, ENCROACHED, ENCROACHES, ENCROACHING, ENCROACHMENT, ENCROACHMENTS, ENCUMBER, ENCUMBERED, ENCUMBERING, ENCUMBERS, ENCUMBRANCE, ENCUMBRANCES, ENDANGER, ENDANGERED, ENDANGERING, ENDANGERMENT, ENDANGERS, ENJOIN, ENJOINED, ENJOINING, ENJOINS, ERODE, ERODED, ERODES, ERODING, EROSION, ERRATIC, ERRATICALLY, ERRED, ERRING, ERRONEOUS, ERRONEOUSLY, ERROR, ERRORS, ERRS, ESCALATE, ESCALATED, ESCALATES, ESCALATING, EVADE, EVADED, EVADES, EVADING, EVASION, EVASIONS, EVASIVE, EVICT, EVICTED, EVICTING, EVICTION, EVICTONS, EVICTS, EXACERBATE, EXACERBATED, EXACERBATES, EXACERBATING, EXACERBATION, EXACERBATIONS, EXAGGERATE, EXAGGERATED, EXAGGERATES, EXAGGERATING, EXAGGERATION, EXCESSIVE, EXCESSIVELY, EXCULPATE, EXCULPATED, EXCULPATES, EXCULPATING, EXCULPATION, EXCULPATIONS, EXCULPATORY, EXONERATE, EXONERATED, EXONERATES, EXONERATING, EXONERATION, EXONERATIONS, EXPLOIT, EXPLOITATION, EXPLOITATIONS, EXPLOITATIVE, EXPLOITED, EXPLOITING, EXPLOITS, EXPOSE, EXPOSED, EXPOSES, EXPOSING, EXPROPRIATE, EXPROPRIATED, EXPROPRIATES, EXPROPRIATING, EXPROPRIATION, EXPROPRIATIONS, EXPULSION, EXPULSIONS, EXTENUATING, FAIL, FAILED, FAILING, FAILINGS, FAILS, FAILURE, FAILURES, FALLOUT, FALSE, FALSELY, FALSIFICATION, FALSIFICATIONS, FALSIFIED, FALSIFIES, FALSIFY, FALSIFYING, FALSITY, FATALITIES, FATALITY, FATALLY, FAULT, FAULTED, FAULTS, FAULTY, FEAR, FEARS, FELONIES, FELONIOUS, FELONY, FICTITIOUS, FINED, FINES, FIRED, FIRING, FLAW, FLAWED, FLAWS, FORBID, FORBIDDEN, FORBIDDING, FORBIDS, FORCE, FORCED, FORCING, FORECLOSE, FORECLOSED, FORECLOSES, FORECLOSING, FORECLOSURE, FORECLOSURES, FOREGO

FOREGOES, FOREGONE, FORESTALL, FORESTALLED, FORESTALLING, FORESTALLS, FORFEIT, FORFEITED, FORFEITING, FORFEITS, FORFEITURE, FORFEITURES, FORGERS, FORGERY, FRAUD, FRAUDS, FRAUDULENCE, FRAUDULENT, FRAUDULENTLY, FRIVOLOUS, FRIVOLOUSLY, FRUSTRATE, FRUSTRATED, FRUSTRATES, FRUSTRATING, FRUSTRATINGLY, FRUSTRATION, FRUSTRATIONS, FUGITIVE, FUGITIVES, GRATUITOUS, GRATUITOUSLY, GRIEVANCE, GRIEVANCES, GROSSLY, GROUNDLESS, GUILTY, HALT, HALTED, HAMPER, HAMPERED, HAMPERING, HAMPERS, HARASS, HARASSED, HARASSING, HARASSMENT, HARDSHIP, HARDSHIPS, HARM, HARMED, HARMFUL, HARMFULLY, HARMING, HARMS, HARSH, HARSHER, HARSHEST, HARSHLY, HARSHNESS, HAZARD, HOSTILE, HOSTILITY, HURT, HURTING, IDLE, IDLED, IDLING, IGNORE, IGNORED, IGNORES, IGNORING, ILL, ILLEGALITIES, ILLEGALITY, ILLEGALLY, ILLEGIBLE, ILLICIT, ILLICITLY, ILLIQUID, ILLIQUIDITY, IMBALANCE, IMBALANCES, IMMATURE, IMMORAL, IMPAIR

IMPAIRED, IMPAIRING, IMPAIRMENT, IMPAIRMENTS, IMPAIRS, IMPASSES, IMPADE, IMPEDED, IMPEDES, IMPEDIMENT, IMPEDIMENTS, IMPEDING, IMPENDING, IMPERATIVE, IMPERFECTION, IMPERFECTIONS, IMPERIL, IMPERMISSIBLE, IMPLICATE, IMPLICATED, IMPLICATES, IMPLICATING, IMPOSSIBILITY, IMPOSSIBLE, IMPOUND, IMPOUNDED, IMPOUNDING, IMPOUNDS, IMPRACTICABLE, IMPRACTICAL, IMPRACTICALITIES, IMPRACTICALITY, IMPRISONMENT, IMPROPER, IMPROPERLY, IMPROPRIETY, IMPRUDENT, IMPRUDENTLY, INABILITY, IMPROPRIETIES, INACCESSIBLE. INACCURACIES, INACCURACY, INACCURATE, INACCURATELY, INACTION, INACTIONS, INACTIVATE, INACTIVATED, INACTIVATES, INACTIVATING, INACTIVATION, INACTIVATIONS, INACTIVITY, INADEOUACIES, INADEOUACY, INADEOUATE, INADEOUATELY, INADVERTENT, INADVERTENTLY, INADVISABILITY, INADVISABLE, INAPPROPRIATE, INAPPROPRIATELY, INATTENTION, INCAPABLE, INCAPACITATED, INCAPACITY, INCARCERATE, INCARCERATED, INCARCERATES, INCARCERATING, INCARCERATION, INCARCERATIONS, INCIDENCE, INCIDENCES, INCIDE INCOMPATIBILITIES, INCOMPATIBILITY, INCOMPATIBLE, INCOMPETENCE, INCIDENT. INCIDENTS. INCOMPETENCY, INCOMPETENT, INCOMPETENTLY, INCOMPETENTS, INCOMPLETE, INCOMPLETELY, INCOMPLETENESS, INCONSISTENCIES, INCONCLUSIVE, INCONSISTENCY, INCONSISTENT, INCONSISTENTLY, INCONVENIENCE, INCONVENIENCES, INCONVENIENT, INCORRECT, INCORRECTLY, INCORRECTNESS, INDECENCY, INDECENT, INDEFEASIBLE, INDEFEASIBLY, INDICT, INDICTABLE, INDICTED, INDICTING, INDICTMENT, INDICTMENTS, INEFFECTIVE, INEFFECTIVELY, INEFFECTIVENESS, INEFFICIENCIES, INEFFICIENCY, INEFFICIENT, INEFFICIENTLY, INELIGIBILITY, INELIGIBLE, INEQUITABLE, INEQUITABLY, INEQUITIES, INEQUITY, INEVITABLE, INEXPERIENCE, INEXPERIENCED, INFERIOR, INFLICTED, INFRACTION, INFRACTIONS, INFRINGE, INFRINGED, INFRINGEMENT, INFRINGEMENTS, INFRINGES, INFRINGING, INHIBITED, INIMICAL, INJUNCTION, INJUNCTIONS, INJURE, INJURED, INJURES, INJURIES, INJURING, INJURIOUS, INJURY, INORDINATE, INORDINATELY, INQUIRY, INSECURE, INSURALE, INSOLVENCIES, INSOLVENCY, INSOLVENT, INSTABILITY, INSUBORDINATION, INSUFFICIENCY, INSUFFICIENT, INSUFFICIENTLY, INSURRECTION, INSURRECTIONS, INTENTIONAL, INTERFERE, INTERFERED, INTERFERENCE, INTERFERENCES, INTERFERES, INTERFERING, INTERMITTENT, INTERMITTENTLY, INTERRUPT, INTERRUPTED, INTERRUPTING, INTERRUPTION, INTERRUPTIONS, INTERRUPTS, INTIMIDATION, INTRUSION, INVALID, INVALIDATE, INVALIDATED, INVALIDATES, INVALIDATING, INVALIDATION, INVALIDITY, INVESTIGATE, INVESTIGATED,

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MISPRICINGS, MISREPRESENT, MISREPRESENTATION, MISREPRESENTATIONS, MISREPRESENTED, MISREPRESENTING, MISREPRESENTS, MISS, MISSED, MISSES, MISSTATE, MISSTATED, MISSTATEMENT, MISSTATEMENTS, MISSTATES, MISSTATING, MISSTEP, MISSTEPS, MISTAKE, MISTAKEN, MISTAKENLY, MISTAKES, MISTAKING, MISTRIAL, MISTRIALS, MISUNDERSTAND, MISUNDERSTANDING, MISUNDERSTANDINGS, MISUNDERSTOOD, MISUSE, MISUSED, MISUSES, MISUSING, MONOPOLISTIC, MONOPOLISTS, MONOPOLIZATION, MONOPOLIZE, MONOPOLIZED, MONOPOLIZES, MONOPOLIZING, MONOPOLY, MORATORIA, MORATORIUM, MORATORIUMS, MOTHBALLED, MOTHBALLING, NEGATIVE, NEGATIVELY, NEGATIVES, NEGLECT, NEGLECTED, NEGLECTFUL, NEGLECTING, NEGLECTS, NEGLIGENCE, NEGLIGENCES, NEGLIGENT, NEGLIGENTLY, NONATTAINMENT, NONCOMPETITIVE, NONCOMPLIANCE, NONCOMPLIANCES, NONCOMPLIANT, NONCOMPLYING, NONCONFORMING, NONCONFORMITIES, NONCONFORMITY, NONDISCLOSURE, NONFUNCTIONAL, NONPAYMENT, NONPAYMENTS, NONPERFORMANCE, NONPERFORMANCES, NONPERFORMING, NONPRODUCING, NONPRODUCTIVE, NONRECOVERABLE, NONRENEWAL, NUISANCE, NUISANCES, NULLIFICATION, NULLIFICATIONS, NULLIFIED, NULLIFIES, NULLIFY, NULLIFYING, OBJECTED, OBJECTION, OBJECTIONABLE, OBJECTIONABLY, OBJECTIONS, OBSCENE, OBSCENITY, OBSOLESCENCE, OBSOLETE, OBSTACLE, OBSTACLES, OBSTRUCT, OBSTRUCTED, OBSTRUCTING, OBSTRUCTION, OBSTRUCTIONS, OFFENCE, OFFENCES, OFFEND, OFFENDED, OFFENDER, OFFENDERS, OFFENDING, OFFENDS, OMISSION, OMISSIONS, OMIT, OMITS, OMITTED, OMITTING, ONEROUS, OPPORTUNISTIC, OPPORTUNISTICALLY, OPPOSE, OPPOSED, OPPOSES, OPPOSING, OPPOSITION, OPPOSITIONS, OUTAGE, OUTAGES, OUTDATED, OUTMODED, OVERAGE, OVERAGES, OVERBUILD, OVERBUILDING, OVERBUILDS, OVERBUILT, OVERBURDEN, OVERBURDENED, OVERCAPACITIES. 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PROTESTED, PROTESTER, PROTESTERS, PROTESTING, PROTESTOR, PROTESTORS, PROTESTS, PROTRACTED, PROTRACTION, PROVOKE, PROVOKED, PROVOKES, PROVOKING, PUNISHED, PUNISHES, PUNISHING, PUNISHMENT, PUNISHMENTS, PUNITIVE, PURPORT, PURPORTED, PURPORTEDLY, PURPORTING, PURPORTS, QUESTION, QUESTIONABLE, QUESTIONABLY, QUESTIONED, QUESTIONING, QUESTIONS, QUIT, QUITTING, RACKETEER, RACKETEERING, RATIONALIZATION, RATIONALIZATIONS, RATIONALIZE, RATIONALIZED, RATIONALIZES, RATIONALIZING, REASSESSMENT, REASSESSMENTS, REASSIGN, REASSIGNED, REASSIGNING, REASSIGNMENT, REASSIGNMENTS, REASSIGNS, RECALL, RECALLED, RECALLING, RECALLS, RECESSION, RECESSIONARY, RECESSIONS, RECKLESS, RECKLESSLY, RECKLESSNESS, REDACT, REDACTED, REDACTING, REDACTION, REDACTIONS, REDEFAULT, REDEFAULTED, REDEFAULTS, REDRESS, REDRESSED, REDRESSES, REDRESSING, REFUSAL, REFUSALS, REFUSE, REFUSED, REFUSES, REFUSING, REJECT, REJECTED, REJECTING, REJECTION, REJECTIONS, REJECTS, RELINQUISH, RELINQUISHED, RELINQUISHES, RELINQUISHING, RELINQUISHMENT, RELINQUISHMENTS, RELUCTANCE, RELUCTANT, RENEGOTIATE, RENEGOTIATED, RENEGOTIATES, RENEGOTIATING, RENEGOTIATION, RENEGOTIATIONS, RENOUNCE, RENOUNCED, RENOUNCEMENT, RENOUNCEMENTS, RENOUNCES, RENOUNCING, REPARATION, REPARATIONS, REPOSSESSED, REPOSSESSES, REPOSSESSING, REPOSSESSION, REPOSSESSIONS, REPUDIATE, REPUDIATED, REPUDIATES, REPUDIATING, REPUDIATION, RESIGN, RESIGNATION, RESIGNATIONS, RESIGNED, RESIGNING, RESIGNS, RESTATE, RESTATED, RESTATEMENT, RESTATEMENTS, RESTATES, RESTATING, RESTRUCTURE, RESTRUCTURED, RESTRUCTURES, RESTRUCTURING, RESTRUCTURINGS, RETALIATE, RETALIATED, RETALIATES, RETALIATING, RETALIATION, RETALIATIONS, RETALIATORY, RETRIBUTION, RETRIBUTIONS, REVOCATION, REVOCATIONS, REVOKE, REVOKED, REVOKES, REVOKING, RIDICULE, RIDICULED, RIDICULES, RIDICULING, RISKIER, RISKIEST, RISKY, SABOTAGE, SACRIFICE, SACRIFICED, SACRIFICES, SACRIFICIAL, SACRIFICING, SCANDALOUS, SCANDALS, SCRUTINIZE, SCRUTINIZED, SCRUTINIZES, SCRUTINIZING, SCRUTINY, SECRECY, SEIZE, SEIZED, SEIZES, SEIZING, SENTENCED, SENTENCING, SERIOUS, SERIOUSLY, SERIOUSNESS, SETBACK, SETBACKS, SEVER, SEVERE, SEVERED, SEVERELY, SEVERITIES, SEVERITY, SHARPLY, SHOCKED, SHORTAGE, SHORTAGES, SHORTFALL, SHORTFALLS, SHRINKAGE, SHRINKAGES, SHUT, SHUTDOWN, SHUTDOWNS, SHUTS, SHUTTING, SLANDER, SLANDERED, SLANDEROUS, SLANDERS, SLIPPAGE, SLIPPAGES, SLOW, SLOWDOWN, SLOWDOWNS, SLOWED, SLOWER, SLOWEST, SLOWING, SLOWLY, SLOWNESS, SLUGGISH, SLUGGISHLY, SLUGGISHNESS, SOLVENCIES, SOLVENCY, SPAM, SPAMMERS, SPAMMING, STAGGERING, STAGNANT. STAGNATE, STAGNATED, STAGNATES, STAGNATING, STAGNATION, STANDSTILL, STANDSTILLS, STOLEN, STOPPAGE, STOPPAGES, STOPPED, STOPPING, STOPS, STRAIN, STRAINED, STRAINING, STRAINS, STRESS, STRESSED, STRESSES, STRESSFUL, STRESSING, STRINGENT, SUBJECTED, SUBJECTING, SUBJECTION, SUBPOENA, SUBPOENAED, SUBPOENAS, SUBSTANDARD, SUE, SUED, SUES, SUFFER, SUFFERED, SUFFERING, SUFFERS, SUING, SUMMONED, SUMMONING, SUMMONS, SUMMONSES, SUSCEPTIBILITY, SUSCEPTIBLE, SUSPECT, SUSPECTED, SUSPEND, SUSPENDED, SUSPENDING, SUSPENDS, SUSPENSION, SUSPENSIONS, SUSPICION, SUSPICIOUS, SUSPICIOUSLY, TAINT, TAINTED, TAINTING, TAINTS, TAMPERED, TENSE, TERMINATE, TERMINATED, TERMINATES, TERMINATING, TERMINATION, TERMINATIONS, TESTIFY, TESTIFYING, THREAT, THREATEN, THREATENED, THREATENING, THREATENS, THREATS, TIGHTENING, TOLERATE, TOLERATED, TOLERATES, TOLERATING, TOLERATION, TORTUOUS, TORTUOUSLY, TRAGEDIES, TRAGEDY, TRAGIC, TRAGICALLY, TRAUMATIC, TROUBLE, TROUBLED, TROUBLES, TURBULENCE, TURMOIL, UNABLE, UNACCEPTABLE, UNACCEPTABLY, UNACCOUNTED, UNANNOUNCED, UNANTICIPATED, UNAPPROVED, UNATTRACTIVE, UNAUTHORIZED, UNAVAILABILITY, UNAVAILABLE, UNAVOIDABLE, UNAVOIDABLY, UNCOLLECTABLE, UNCOLLECTED, UNCOLLECTIBILITY, UNCOLLECTIBLE. UNAWARE. UNCOLLECTIBLES, UNCOMPETITIVE, UNCOMPLETED, UNCONSCIONABLE, UNCONSCIONABLY, UNCONTROLLABLE, UNCONTROLLABLY, UNCONTROLLED, UNCORRECTED, UNCOVER, UNCOVERED, UNCOVERING, UNCOVERS, UNDELIVERABLE, UNDELIVERED, UNDERCAPITALIZED, UNDERCUT, UNDERCUTS. UNDERCUTTING, UNDERESTIMATE, UNDERESTIMATED, UNDERESTIMATES, UNDERESTIMATION, UNDERFUNDED, UNDERINSURED, UNDERESTIMATING, UNDERMINE, UNDERMINED, UNDERMINES, UNDERMINING, UNDERPAID, UNDERPAYMENT, UNDERPAYMENTS, UNDERPAYS, UNDERPERFORM, UNDERPERFORMANCE, UNDERPERFORMED, UNDERPERFORMING, UNDERPERFORMS, UNDERPRODUCED, UNDERPRODUCTION, UNDERREPORTING, UNDERSTATE, UNDERSTATEMENT, UNDERSTATED, UNDERSTATEMENTS, UNDERSTATES, UNDERSTATING, UNDERUTILIZATION, UNDERUTILIZED, UNDESIRABLE, UNDESIRED, UNDETECTED, UNDETERMINED, UNDULY, UNECONOMIC, UNDOCUMENTED, UNDISCLOSED. UNDUE, UNECONOMICAL. UNECONOMICALLY, UNEMPLOYED, UNEMPLOYMENT, UNETHICAL, UNETHICALLY, UNEXCUSED, UNEXPECTED, UNEXPECTEDLY, UNFAIR, UNFAIRLY, UNFAVORABILITY, UNFAVORABLE, UNFAVORABLY, UNFAVOURABLE, UNFEASIBLE, UNFIT, UNFITNESS, UNFORESEEABLE, UNFORESEEN, UNFORSEEN, UNFORTUNATE, UNFORTUNATELY, UNFOUNDED, UNFRIENDLY, UNFULFILLED, UNFUNDED, UNINSURED, UNINTENDED, UNINTENTIONAL, UNINTENTIONALLY, UNJUST, UNJUSTIFIABLE, UNJUSTIFIABLY, UNJUSTIFIED, UNJUSTLY, UNKNOWING, UNKNOWINGLY, UNLAWFUL, UNLAWFULLY, UNLICENSED, UNLIQUIDATED, UNMARKETABLE, UNMERCHANTABLE, UNMERITORIOUS, UNNECESSARILY, UNNECESSARY, UNNEEDED, UNOBTAINABLE, UNOCCUPIED, UNPAID, UNPERFORMED, UNPLANNED, UNPOPULAR, UNPREDICTABILITY, UNPREDICTABLE, UNPREDICTABLY, UNPREDICTED, UNPRODUCTIVE, UNPROFITABLITY, UNPROFITABLE, UNQUALIFIED, UNREALISTIC, UNRECEPTIVE, UNREASONABLE, UNREASONABLENESS, UNREASONABLY, UNRECOVERABLE, UNRECOVERED, UNREIMBURSED, UNRELIABLE, UNREMEDIED, UNREPORTED, UNRESOLVED, UNREST, UNSAFE, UNSALABLE, UNSALEABLE, UNSATISFACTORY, UNSATISFIED, UNSAVORY, UNSCHEDULED, UNSELLABLE, UNSOLD, UNSOUND, UNSTABILIZED, UNSTABLE, UNSUCCESSFUL, UNSUCCESSFULLY, UNSUITABILITY, UNSUBSTANTIATED, UNSUITABLE. UNSUITABLY, UNSUITED, UNSURE, UNSUSPECTED, UNSUSPECTING, UNSUSTAINABLE, UNTENABLE, UNTIMELY, UNTRUSTED, UNTRUTH, UNTRUTHFUL, UNTRUTHFULLY, UNTRUTHFULNESS, UNTRUTHS, UNUSABLE, UNWANTED, UNWARRANTED, UNWELCOME, UNWILLING, UNWILLINGNESS, UPSET, URGENCY, URGENT, USURIOUS, USURP, USURPED, USURPING, USURPS, USURY, VANDALISM, VERDICT, VERDICTS, VETOED, VICTIMS, VIOLATE, VIOLATED, VIOLATES, VIOLATING, VIOLATION, VIOLATIONS, VIOLATIVE, VIOLATOR, VIOLATORS, VIOLENCE, VIOLENT, VIOLENTLY, VITIATE, VITIATED, VITIATES, VITIATING, VITIATION, VOIDED, VOIDING, VOLATILE, VOLATILITY, VULNERABILITIES, VULNERABILITY, VULNERABLE, VULNERABLY, WARN, WARNED, WARNING, WARNINGS, WARNS, WASTED, WASTEFUL, WASTING, WEAK, WEAKEN, WEAKENED, WEAKENING, WEAKENS, WEAKER, WEAKEST, WEAKLY, WEAKNESS, WEAKNESSES, WILLFULLY, WORRIES, WORRY, WORRYING, WORSE, WORSEN, WORSENED, WORSENING, WORSENS, WORST, WORTHLESS, WRITEDOWN, WRITEDOWNS, WRITEOFF, WRITEOFFS, WRONG, WRONGDOING, WRONGDOINGS, WRONGFUL, WRONGFULLY, WRONGLY.

Appendix B: The process of using PYTHON software

By using PYTHON software, we firstly divide the transcript into the two parts (presentation, and Q&A). The words in presentation part stems from managers. Therefore, all words in this part is taken into consideration. However, words in the Q&A part come from different sources (i.e. managers, analysts, and audience members). The earnings conference call transcript has identical format. In the Q&A part, the name of manager followed by the position of this manager (ex. Head of IR and Corporate Development, CEO, etc.) is shown, when he or she speaks. Furthermore, the name of analyst followed by word "Analyst" is shown when an analyst speaks. However, when one of the other audience members speak, this expression "Unidentified Audience Member" is presented in Q&A part. Therefore, we divide this part into two sections by using PYTHON software through determining these two expressions (i.e. "Analyst" and "Unidentified Audience Member"). The first section includes words spoken by "Analyst" and "Unidentified Audience Member", while the second section consists words spoken by the other people not included under "Analyst" and "Unidentified Audience Member", while the second section consists words spoken by the other people not included under "Analyst" and "Unidentified Audience Member", while the second section consists words spoken by the other people not included under "Analyst" and "Unidentified Audience Member", while the second section consists words spoken by the other people not included under "Analyst" and "Unidentified Audience Member", while the second section consists words spoken by the other people not included under "Analyst" and "Unidentified Audience Member", while the second section consists words spoken by the other people not included under "Analyst" and "Unidentified Audience Member", while the second section consists words spoken by the other people not included under "Analyst" and "Unidentified Audience Member", while the second section consists words in the analysis of TONE the whole presentation par

Appendix C: Variable definitions

Tone: is management positive tone measured by calculating the difference between the positive and negative words spoken by managers in earnings conference call (the presentation, and Q&A parts) scaled by the summation between them, based on word lists from Loughran and McDonald (2011).

Tone_All: is the optimistic tone in the whole earnings conference call measured by calculating the difference between the positive and negative words in the whole earnings conference call scaled by the summation between them, based on word lists from Loughran and McDonald (2011).

Audience_Tone: is the difference between the positive and negative words spoken by audience (not managers), who attend the earnings conference call scaled by the summation between them, based on word lists from Loughran and McDonald (2011).

Normal_Tone: is the expected management positive tone obtained after running the regression of the tone model.

Ab_Tone: is abnormal management positive tone, which is measured as the residual from the regression of the tone model.

 $EM \times JMBE$: the interaction between one of the earnings management proxies and firms that just meet or beat the earnings target.

EM: refers to the earnings management proxy, which is one of the discretionary accruals measures or real earnings management measure.

DA_J: is discretionary accrual through cash flow approach according to Jones model.

DA_MJ: is discretionary accrual through cash flow approach according to Modified Jones model.

REM: is the summation between the abnormal level of cash flows from operations and the abnormal level of discretionary expenses multiplied by (-1), which express the aggregated measure of real earnings management.

 Δ EPS: change in earnings per share from year t-1 to year t.

JMBE: is an indicator variable is set to 1 if Δ EPS falls in the neighbourhood from zero to a small positive number, and 0 otherwise. (The small positive number is identified in each test).

EARN: earnings before extraordinary items scaled by lagged total assets.

RET: annual stock return calculated by this formula $((P_t - P_{t-1}) + Div_t) / P_{t-1})$, where:

 P_t : Stock price in year t.

P_{t-1}: Stock price in year t-1.

Div_t: Dividends per share in year t.

Size: logarithm of market value of equity at the end of fiscal year.

BTM: book-to-market ratio measured at the end of fiscal year.

STD_RET: standard deviation of monthly stock returns over the fiscal year (monthly stock returns is obtained by calculating the growth in monthly total return index, which has been collected from DataStream database).

ERN_volatility: standard deviation of EARN calculated over the last five years, with at least three years of data required.

Age: $\log(1 + \text{age from the first year the firm entered the DataStream database})$.

Loss: an indicator variable set to 1, when EARN is negative, and is 0 otherwise.

 Δ ERN: change in earnings before extraordinary item scaled by lagged total assets.

AFE: Analysts' forecast error, calculated by taking the difference between actual EPS and the median of analysts' forecasts EPS (Bloomberg estimation), scaled by stock price at the end of the fiscal year.

AF: The median of analysts' forecasts EPS related to the year t+1 (Bloomberg estimation), scaled by stock price at the end of the fiscal year.

PPE: gross property plant and equipment scaled by lagged total assets.

REV_Growth: is sales growth calculated by change in sales divided by the beginning of period sales. **DEBT_TO_EQY:** is total debt scaled by total shareholders' equity. issue: is an indicator variable set equal to one if the firm issued equity or debt in the year, and zero otherwise.

FTSE_350: is an indicator variable set equal to one if the firm is classified under FTSE 350 list, and zero otherwise.

Year: Year Dummies (2010, 2011, 2012, 2013, 2014, and 2015).

Bus_Segments: log (1 + number of business segments).

Geographic_segments: log (1 + number of geographic segments).

Industry: Industry Dummies based on the two digits of ICB industry classifications.

 Δ Earnings: change in earnings before extraordinary item from year t-1 to year t.

TA: total assets in year t.

TACit: is total accruals for firm i in year t, based on the cash flow approach, divided by total assets for firm i at the end of year t-1.

Ai,t-1: is lagged total asset for firm i,

 Δ **REVit:** is change in revenue for firm i in year t divided by total assets for firm i at the end of year t-1, and

PPEit: is gross property, plant and equipment for firm i in year t divided by total assets for firm i at the end of year t-1.

 Δ **RECit:** is change in net receivable for firm i in year t divided by total assets for firm i at the end of year t-1, and

CFO $_{i,t}$: is firm's cash flow from operations for firm i in year t divided by total assets at the beginning of year t.

REVit : is revenue for firm i in year t divided by total assets for firm i at the end of year t-1.

DISX_{it} : is the sum of, SG&A (selling, general, and administrative expense), R&D (research and development), and advertising expenses for firm i at period t divided by total assets for firm i at the end of year t-1. If data for SG&A expense is available, and data for R&D and advertising expenses are missing, these two expenses are set to zero.

REV_{it-1}: is revenue for firm i in year t-1 divided by total assets for firm i at the end of year t-1.